

AMENDMENTS TO THE CLAIMS

1 to 14. (Cancelled)

15. (Previously Presented) A bronze alloy consisting of 5.0 to 10.0 weight% of Zn, 2.8 to 5.0 weight% of Sn, 0.25 to 3.0 weight% of Bi, $0 < \text{Se} < 0.35$ weight% of Se, less than 0.5 weight% of P, the balance of Cu and unavoidable impurities, said bronze alloy having soundness improved during a course of solidification of the bronze alloy by crystallizing ZnSe that is an intermetallic compound capable of solidifying within a range of solidifying temperature as a temperature region between a solidus line and a liquidus line surpassing the solidus line in dendrite gaps of the alloy, thereby suppressing migration of a solute and consequently effecting dispersion of microporosities and by utilizing the crystallization of the intermetallic compound ZnSe for suppressing segregation of Bi that is a low melting metal capable of solidifying at a temperature falling short of the solidifying temperature of the bronze alloy and relying on the Bi to enter the microporosities and undergo dispersed crystallization and consequently suppress occurrence of microporosities.

16. (Previously Presented) The bronze alloy according to claim 15, wherein at least 5.0 to 10.0 weight% of Zn and $0 < \text{Se} < 0.35$ weight% of Se are contained and ZnSe is crystallized as an intermetallic compound in the dendritic gaps of the alloy during the course of solidification of the bronze alloy.

17. (Previously Presented) The bronze alloy according to claim 15, wherein the intermetallic compound has a surface ratio of 0.3% or more and 5.0% or less.

18. (Previously Presented) The bronze alloy according to claim 15, wherein at least 0.25 to 3.0 weight% of Bi is contained and Bi is crystallized as the low melting metal in a region of the solute during the course of solidification of the bronze alloy.

19. (Previously Presented) The bronze alloy according to claim 15, wherein the low melting metal or low melting intermetallic compound has a surface ratio of 0.2% or more and 2.5% or less.

20. (Previously Presented) A bronze alloy consisting of 5.0 to 10.0 weight% of Zn, 2.8 to 5.0 weight% of Sn, 0.25 to 3.0 weight% of Bi, $0 < \text{Se} < 0.35$ weight% of Se, less than 0.5 weight% of P, the balance of Cu, and less than 0.2 weight% of Pb as an unavoidable impurity, said bronze alloy having soundness improved during a course of solidification of the bronze alloy by crystallizing ZnSe that is an intermetallic compound capable of solidifying within a range of solidifying temperature as a temperature region between a solidus line and a liquidus line surpassing the solidus line in dendrite gaps of the alloy, thereby suppressing migration of a solute and consequently effecting dispersion of microporosities and by utilizing the crystallization of the intermetallic compound ZnSe for suppressing segregation of Bi that is a low melting metal capable of solidifying at a temperature falling short of the solidifying temperature of the bronze alloy and relying on the Bi to enter the microporosities and undergo dispersed crystallization and consequently suppress occurrence of microporosities.

21. (Cancelled)

22. (Previously Presented) A bronze alloy consisting of 5.0 to 10.0 weight% of Zn, 2.8 to 5.0 weight% of Sn, 0.25 to 3.0 weight% of Bi, $0 < \text{Se} < 0.35$ weight% of Se, less than 0.5 weight% of P, 3.0 weight% or less of Ni, the balance of Cu and unavoidable impurities, said bronze alloy having soundness improved during a course of solidification of the bronze alloy by crystallizing ZnSe that is an intermetallic compound capable of solidifying within a range of solidifying temperature as a temperature region between a solidus line and a liquidus line surpassing the solidus line in dendrite gaps of the alloy, thereby suppressing migration of a solute and consequently effecting dispersion of microporosities and by utilizing the crystallization of the intermetallic compound ZnSe for suppressing segregation of Bi that is a low melting metal capable of solidifying at a temperature falling short of the solidifying temperature of the bronze alloy and relying on the Bi to enter the microporosities and undergo dispersed crystallization and consequently suppress occurrence of microporosities.